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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/725,500      | 11/30/2000  | Patric Heide         | 051480-5032         | 8866             |

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MORGAN LEWIS & BOCKIUS LLP  
1111 PENNSYLVANIA AVENUE NW  
WASHINGTON, DC 20004

EXAMINER

BANGACHON, WILLIAM L

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2635

DATE MAILED: 03/31/2004

12

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/725,500

Applicant(s)

HEIDE ET AL.

Examiner

William Bangachon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

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## DETAILED ACTION

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/16/04 has been entered.

### ***Response to Arguments***

2. Applicant's arguments have been fully considered but they are not persuasive.

In this case, applicant argues that King does not teach **“an evaluation unit operable to evaluate the echo signal to verify the authorization code supplied from the code transmitter if a distance between the code transmitter and the transmitting and receiving unit is determined to be above a threshold value”** (page 6, 5<sup>th</sup> paragraph; page 8, 6<sup>th</sup> paragraph). The examiner respectfully traverse applicant's arguments in that, King clearly shows “an evaluation unit/controller (fig.1, 40) operable to evaluate the echo signal to verify the authorization code supplied from the code transmitter (22) if a distance between the code transmitter and the transmitting and receiving unit (20) is determined to be above a threshold value (50) as shown in figures 2A and 2B {col. 1, lines 44-58; col. 2, line 43-col. 3, line 55}.

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Therefore, rejection to the claims is maintained in this Office action.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1-2, 7-8 and 10-11, are rejected under 35 U.S.C. 102(e) as being anticipated by US 6,236,333 (King).

In claims 1 and 2, King discloses an anti-theft protection system for a motor vehicle {see whole document}, the anti-theft protection system comprising:

a transmitting and receiving unit (20) adapted to be arranged on the motor vehicle, the transmitting and receiving unit transmitting a transmitted signal that is modulated over a broad bandwidth {col. 2, lines 33-35; col. 4, lines 17-22};

a code transmitter (22) adapted to be portable with respect to the motor vehicle, the code transmitter transmitting an echo signal at least in response to receiving the transmitted signal {col. 2, lines 16-26}, wherein the echo signal includes an authorization code {col. 1, lines 54-56; col. 3, lines 14-18}; and

an evaluation unit/controller (40) operable to evaluate the echo signal to verify the authorization code supplied from the code transmitter (22) if a distance between the code transmitter and the transmitting and receiving unit (20) is determined to be above a threshold value (50) {col. 1, lines 44-58; col. 2, line 43-col. 3, line 55}.

Claim 7 recites a method for practicing the system of claim 1 and therefore rejected for the same reasons.

Claims 8 and 10 further comprises of "checking an echo profile of the echo signal {col. 2, lines 50-61} and determining at least one of the distance and a change in the distance" {col. 3, lines 37-55}.

Claim 11 further comprises one of a microwave signal and radar signal that is greater than 1 GHz {col. 2, lines 19-22}.

8. Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,236,333 (King).

With regards to claims 3 and 4, King does not disclose expressly a plurality of the transmitting and receiving units (42) adapted to be distributed on the motor vehicle. However, as an alternative, King discloses that "controllers can be installed in each sensor 30a-e to generate distance and scenario profiling" {col. 2, lines 59-61}. The

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controller transmits interrogation signals and receives echo signals via the transmitter / receiver (42). Obviously, if the controller is installed in each sensor 30a-e (as shown in figure 1), then a plurality of the transmitting and receiving units (42) is distributed on the motor vehicle. Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to have a plurality of the transmitting and receiving units (42) distributed on the motor vehicle of King, if the controller (40) is installed in each sensor 30a-e.

9. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,236,333 (King) in view of US 5,956,259 (Hartsell, Jr. et al).

In claim 5, King does not disclose the evaluation unit / controller (42) **triangulates** the echo signal received by each of the plurality of the transmitting and receiving units to determine the location of the code transmitter with respect to the transmitting and receiving unit. Determining the location of a mobile object with triangulation techniques is conventional as evidenced by Hartsell {Hartsell, col. 9, lines 9-44} and would have been obvious in the system of King to one of ordinary skill in art.

The systems of King and Hartsell are analogous art because they are from similar problem solving area, distance determination using wireless communication. Hartsell teaches of **triangulation techniques** for determining the distance between a vehicle (1B) and a plurality of fueling stations (10A-10D) {Hartsell, col. 9, lines 9-44}. Hartsell suggests triangulation requires at least two antennas {Hartsell, col. 9, lines 35-

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37}. This is to ensure that the owner of the vehicle 1B is charged the correct amount when fueling and not charged the amount vehicle 1D or vehicle 1A has incurred. On the other hand, King suggests as an alternative, to have a controller (40) installed in each sensors 30a-e to generate distance and scenario profiling in each sensor {King, col. 2, lines 59-61}. The system of King has more than two antennas and obviously adapted for triangulation techniques by comparing the magnetic fields in each sensor 30a-e. Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to have the evaluation unit / controller (42) triangulate the echo signal (as evidenced by Hartsell, Jr. et al) received by each of the plurality of the transmitting and receiving units (30a-e) to determine the location of the code transmitter with respect to the transmitting and receiving unit by comparing the magnetic fields in each sensor 30a-e, because this will ensure that only the door that the owner of the vehicle (20) approach will unlock.

10. Claims 6 and 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,236,333 (King) in view of US 4,723,121 (van den Boom et al).

In claim 6, King does not disclose a plurality of the code transmitters, each of the plurality of code transmitters transmitting different modulated echo signals; and wherein the evaluation unit evaluates and prioritizes the different modulated echo signals. However, these claim limitations would have been obvious in the system of King, to one of ordinary skill in the art. It is desirable to have a plurality of code transmitters in the



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system of King in case the single code transmitter gets lost or misplaced. In which case, the owner of a vehicle can still open the vehicle doors or drive the vehicle, to one of ordinary skill in the art. Unfortunately, keys get misplaced during emergencies. As evidenced by van den Boom, multiple electronic keys 10' and 10'' (code transmitters) can be associated with a lock 20 wherein the relationship of the lock to the keys can be tailored {van den Boom, col. 10, lines 7-21}. The systems of King and van den Boom are analogous art because they are from same field of endeavor, vehicle-locking apparatus. Therefore, at the time of the invention, it would been obvious to one of ordinary skill in the art to have plurality of code transmitters in the system of King wherein the relationship of each code transmitter with the lock can be tailored (as evidenced by van den Boom), because in case the single code transmitter gets lost or misplaced, the owner of a vehicle can still open the vehicle doors or drive the vehicle.

Claim 9 recites a method for practicing the system of claims 1 and 6 and therefore rejected for the same reasons, further comprising a plurality of the transmitting and receiving units that evaluates the echo signal {col. 2, lines 28-36; col. 3, lines 48-55}.

***Examiner Contact Information***

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William Bangachon whose telephone number is 703-305-2701. The examiner can normally be reached on 4/4/10.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik can be reached on 703-305-4704. The fax phone numbers for the organization where this application or proceeding is assigned is 703-872-9314 for regular and After Final formal communications. The examiner's fax number is 703-746-6071 for informal communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

William L Bangachon  
Examiner  
Art Unit 2635

March 30, 2004

MICHAEL HORABIK  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2635

